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REMARKS

Applicant wishes to thank the Examiner for the detailed remarks. Claim 20 has been amended and new claim 47 has been added. Claims 11-17 and 35-42 were previously withdrawn. Accordingly, claims 1-3 and 11-47 are pending in the application, and claims 1-3, 18-34, and 43-46 stand rejected.

Regarding the Office Communication of 11 July 2007, support for the amendment "up to about 7 weight percent" in claim 20 can be found in the subject application on page 5, lines 17-19; page 11, Table I; and page 13, Table II. Further, new claim 47 is presented and recites a composite consisting of "about 2.5 to about 6 weight percent aluminum, about 30 to about 50 weight percent nickel, about 3 to 30 weight percent zinc, up to about 7 weight percent of at least one element selected from a group consisting of silicon, chromium, titanium, and combinations thereof, and a balance of copper, and reinforcing fibers within the metal matrix, the reinforcing fibers consisting of at least one material selected from metal oxide, carbide, or combinations thereof," which is believed not to be disclosed or suggested by the cited prior art. As described below, the cited references include additional elements that are not found in the claimed composition.

Rejection Under §112, First Paragraph

Claims 20, 22, and 26 were rejected under 35 U.S.C. §112, first paragraph because the limitation "less than 3 weight percent" in claim 20; "dimension is about 8" in claim 22; and "about 85 volume percent" in claim 26 are not found in the specification. Regarding claim 20, the claim has been amended for consistency with the specification. Regarding claims 22 and 26, appropriate amendments have been made to the specification. Respectfully, Applicant requests that the rejections be withdrawn.

Rejection Under §103(a) over *Takagi* or *Kondoh*

Claims 1-3, 18-34, and 43-46 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Takagi* or *Kondoh*. The Examiner argues that each of *Takagi* and *Kondoh*

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discloses the claimed composition; however, Applicant disagrees because the Examiner has overlooked the "consisting essentially of" language of claims 1, 18, and 43.

Independent claims 1, 18, and 43 each recite a composition "consisting essentially of" certain compositional constituents. The Examiner has failed to consider that the "consisting essentially of" language limits the claimed composition to the specified elements and other elements that do not materially affect the basic and novel characteristics of the claimed invention. For example, other elements are unremovable and uncounted impurities (see Specification p.11, paragraph 29). The compositions given in *Takagi* include elements that are not impurities and that are not recited within the claimed composition, such as boron, iron, and/or tin (col.3, line 26 to col.4, line24). Likewise, the compositions disclosed in *Kondoh* also include additional elements that are not impurities and that are not found in Applicant's claimed compositions, such as tin (col. 3, lines 43 to 45). Therefore, *Takagi* and *Kondoh* do not read on the "consisting essentially of" language of Applicant's claims. Respectfully, Applicant submits that the rejection of claims 1, 18, and 43 should be withdrawn.

Additionally, the Examiner attempts to rely on *In Re Peterson* for establishing obviousness. In this case, *prima facie* obviousness existed because the chemical elements of the claimed composition and the reference composition were the same and overlapped in range. However, in the present rejection the reference compositions each include additional elements that are not found in the claimed composition. Therefore, the *Peterson* case cannot be used for establishing *prima facie* obviousness because there are additional elements in the reference compositions. The references do not suggest, and the Examiner has not established any motivation for modifying the compositions of *Takagi* or *Kondoh* to exclude the additional elements. For this additional reason, the rejection should be withdrawn.

Regarding claim 21, the claim recites the limitation that the "reinforcing agent is a fiber." The rejection fails to consider or even mention this feature. The cited references use granules or particles to provide reinforcement, not fibers as recited in Applicant's claim. For this reason, the rejection of claim 21 should be withdrawn.

Regarding claim 26, the claim recites that the reinforcing agent is present in a range of "about 55 to about 85 volume percent." This range does not appear to overlap the ranges in the

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cited references. Furthermore, since the claimed range appears to be above the cited ranges (*Takagi* discloses at most 30 vol%; *Kondoh* discloses at most 5 wt%, which is not equivalent to volume percent as the Examiner seems to insinuate), these references serve as evidence that it would not be necessarily obvious to one of ordinary skill to use such a high percentage as Applicant has claimed. Therefore, the burden remains with the Examiner to establish *prima facie* obviousness of Applicant's claimed range. For this reason, the rejection of claim 26 should be withdrawn.

Regarding claim 27, the Examiner argues that the claimed composition overlaps the reference compositions and that consequently the properties recited in claim 27 would have been inherent in the reference compositions. Claim 27 does not even disclose a composition. The Examiner is improperly attempting to read limitations of other claims into claim 27. Thus, the Examiner's reasoning that the reference compositions would exhibit the claimed property of a threshold burn resistant pressure of more than about 5,000 psi based on Applicant's claimed composition is unjustified. For this reason, the rejection should be withdrawn.

Rejection Under §103(a) over *Akutsu*

Claims 18-34 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Akutsu*. The Examiner argues that *Akutsu* discloses the claimed composition; however, Applicant disagrees for the same reasons as stated above that the Examiner has overlooked the "consisting essentially of" language of claim 18. The composition disclosed in *Akutsu* contains additional elements that are not found in Applicant's claimed composition, such as manganese and at least one of tungsten and molybdenum (col.1, lines 50-58). Therefore, the composition disclosed in *Akutsu* does not meet the "consisting essentially of" language of Applicant's claims. Respectfully, Applicant submits that the rejection of claim 18 should be withdrawn.

The rejection of claim 21 should be withdrawn for the same reason as stated above that the rejection fails to consider or even mention the claimed limitation that "reinforcing agent is a fiber." The material of *Akutsu* uses granules to provide reinforcement, not fibers as recited in Applicant's claim. For this reason, the rejection of claim 21 should be withdrawn.

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The rejection of claim 26 should be withdrawn for the same reason as stated above that the reference does not disclose the claimed range of "about 55 to about 85 volume percent." The claimed range does not appear to overlap the range of *Akutsu*, which discloses at most 15 vol%.

Regarding claim 27, as described above, the claim does not even disclose a composition. The Examiner is improperly attempting to read limitations of other claims into claim 27. Thus, the Examiner's reasoning that the composition of *Akutsu* would exhibit the claimed property of a threshold burn resistant pressure of more than about 5,000 psi based on Applicant's claimed composition is unjustified. For this reason, the rejection should be withdrawn.

Fees in the amount of \$200.00 for one additional independent claim may be charged to Deposit Account No. 21-0279 in the name of United Technologies Corporation. Applicant believes that no additional fees are necessary, however, the Commissioner is authorized to charge Deposit Account No. 21-0279 in the name of United Technologies Corporation for any additional fees or credit the account for any overpayment.

Respectfully submitted,



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Dated: August 8, 2007

CERTIFICATE OF TRANSMISSION UNDER 37 CFR 1.8

I hereby certify that this correspondence is being facsimile transmitted to the United States patent and Trademark Office, fax number (571) 273-8300, on August 8, 2007.



Laura Combs